

Work Order ID 59457

Friday, June 04, 2010 11:43:24 AM



Page 1

Item ID: D2893-1

Accept



Setup Start



Revision ID:

Item Name: 2.75 Support

Stop



Start Date: 6/4/2010 Start Qty: 20.00



Cust Item ID:

Required Date: 6/10/2010 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan: ✓Date: 10/06/04

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2893

Rev B

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio FA081 □ Tumble & Deburr

[Signature] 10/06/28
MF 10/06/30

19 1

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

[Signature] 10/06/28
MF 10/06/30

19 1

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

[Signature] 10/07/01

19 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2893-1 PAR #: _____ Fault Category: Machining NCR: ☒ Yes No DQA: / Date: 1008.27
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: / Date: 10/08/30

NCR: <u>59451</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10/06/28</u>	<u>100</u>	<u>2nd part is Scrap</u> <u>operator error</u> <u>↳ Adjusted origine on</u> <u>wrong side</u> <u>RC: Lack of attention.</u>	<u>CP</u> <u>10.06.28</u> <u>QSI 042</u>	<u>Scrap</u> <u>Adjuste origine correctly</u>	<u>10/06/28</u> <u>DJP</u>	<u>SP</u> <u>10/08/01</u>	<u>CP</u> <u>10.06.28</u> <u>QSI 042</u>	<u>S</u> <u>10/08/23</u>

NOTE: Date & initial all entries

Work Order ID 59457

Friday, June 04, 2010 11:43:24 AM



Page 2

Item ID: D2893-1

Accept



Setup Start



Revision ID:

Item Name: 2.75 Support

Stop



Start Date: 6/4/2010 Start Qty: 20.00



Cust Item ID:

Required Date: 6/10/2010 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

M114341

Memo

0.00

Powder Coating

Mask Inside Bore for Priming ☐ START TIME: 2:00 ☐ OVEN TEMPERATURE: 100° ☐ FINISH TIME: 2:50

19 BL 10-7-5.

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

=> M 10/04/66

19 0

150

SprayPaint

0.00



SprayPaint

Memo

0.00

Spray Painting

Prime inside surface as per Dwg D2893 and QSI 005 4.3

21 10-08-23 (x19)

(P40)



W/O: 59457		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10-08-23	19	mask exterior powder coat Finish to prevent overspray	BT	10-08-23	(19)		S 10/08/23

Part No: DZ893-1 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10-08-23	18							

NOTE: Date & initial all entries

Work Order ID 59457

Friday, June 04, 2010 11:43:24 AM

Page 3

Item ID: D2893-1

Accept

Revision ID:

Item Name: 2.75 Support

Start Date: 6/4/2010 Start Qty: 20.00

Required Date: 6/10/2010 Req'd Qty: 20.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160 QC14- Inspect Spray Paint 0.00



QC Memo 0.00

Quality Control

10 08 24 (19)

170 Identify as per dwg & Stock Location: 0.00



Packaging Memo 0.00

Packaging

25 10 08 - 24 (19)

180 QC21- Final Inspection - Work Order Release 0.00



QC Memo 0.00

Quality Control

10/08/24

CD1018124

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, June 04, 2010 11:43:29 AM

Page 1

Work Order ID: 59457



Parent Item: D2893-1



Parent Item Name: 2.75 Support

Start Date: 6/4/2010

Required Date: 6/10/2010

Comments:

IPP: C 02.11.26 Reformat; Added P/O KJ

IPP D 06.04.19 removed alodine EC

IPP Rev:E Added priming as per Rev B 07-04-30 JLM

IPP F 08.03.19 Re-format EC verified by: DD

Start Qty: 20.00

Required Qty: 20.00

DSK078

Manufactured No

100

Each

10.0000

0.5

10



D2893-1 TURNING DETAIL

Location

Loc Qty

Loc Code

MAT

10

56580

10

10 10/06/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	59457
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.990		2.990	2.991	2.990
AB	0.440	0.460		0.440		.440	.440	.440
AC	0.125	0.160		0.130		.145	.140	.142
AD	0.040	0.060		0.050		.050	.050	.050
AE	0.188	0.193		0.190		.190	.190	.191
AF	0.125	0.160		0.140		.137	.138	.140
AG	0.140	0.160		0.140		.158	.158	.159
AH	1.360	1.400		1.385		1.322	1.320	1.320
AI	0.040	0.060		0.054		.053	.053	.056
AJ	1.190	1.230		1.229		1.216	1.216	1.214
AK	0.010	0.020		0.015		.015	.015	.015
AL	0.053	0.073		0.063	0.063	.063	.063	.063
AM	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AN	2.518	2.538		2.530		2.530	2.530	2.53
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		0.263	0.263	.263	.263	.263
AQ	0.053	0.073		0.063	0.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject				Accept	Reject			

Measured by:	<i>[Signature]</i>	Date:	10/06/28 / 10/06/28
Audited by:	<i>[Signature]</i>	Date:	10/07/21
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	59457
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6	7	8	9	10
HAAS Section								
AA	2.985	3.005		2.989	2.990	2.989	2.990	2.990
AB	0.440	0.460		.450	.441	.440	.441	.440
AC	0.125	0.160		.136	.140	.144	.142	.142
AD	0.040	0.060		.051	.049	.051	.049	.051
AE	0.188	0.193		.192	.190	.190	.190	.191
AF	0.125	0.160		.139	.140	.141	.138	.142
AG	0.140	0.160		.156	.153	.154	.153	.153
AH	1.360	1.400		1.373	1.375	1.372	1.350	1.372
AI	0.040	0.060		.052	.055	.053	.052	.058
AJ	1.190	1.230		1.218	1.221	1.216	1.214	1.219
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.534	2.530	2.530	2.530	2.531
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.266	.264	.264	.264	.264
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: MJT	Date: 02/06/29
Audited by: SP	Date: 10/07/1
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	594157
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	13	14	15
HAAS Section								
AA	2.985	3.005		2.989	2.990	2.988	2.988	2.988
AB	0.440	0.460		.440	.440	.440	.440	0.440
AC	0.125	0.160		.132	.135	.135	.139	0.130
AD	0.040	0.060		.050	.050	.049	.050	0.050
AE	0.188	0.193		.192	.192	.192	.191	0.190
AF	0.125	0.160		.143	.140	.138	.139	0.141
AG	0.140	0.160		.152	.151	.153	.153	0.148
AH	1.360	1.400		1.368	1.370	1.370	1.370	1.365
AI	0.040	0.060		.050	.053	.055	.053	0.053
AJ	1.190	1.230		1.217	1.215	1.217	1.215	1.211
AK	0.010	0.020		.015	.015	.015	.015	0.015
AL	0.053	0.073		.063	.063	.063	.063	0.063
AM	0.240	0.260		.250	.250	.250	.250	0.250
AN	2.518	2.538		2.530	2.527	2.530	2.530	2.525
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.263	.264	.263	.265	0.263
AQ	0.053	0.073		.063	.063	.063	.063	0.063
AR								
AS								
AT								
Accept/Reject								

Measured by: MME / DSP Date: 10/06/30 / 10/07/01

Audited by: JP Date: 10/07/01

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	59457
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16 /	17 2	18 8	19 4	20 5
HAAS Section								
AA	2.985	3.005		2.988	2.988	2.988	2.986	2.985
AB	0.440	0.460		0.440	0.440	0.440	0.440	0.440
AC	0.125	0.160		0.130	0.130	0.130	0.127	0.127
AD	0.040	0.060		0.050	0.050	0.050	0.050	0.050
AE	0.188	0.193		0.191	0.191	0.191	0.191	0.191
AF	0.125	0.160		0.141	0.141	0.141	0.140	0.140
AG	0.140	0.160		0.150	0.147	0.148	0.149	0.148
AH	1.360	1.400		1.370	1.367	1.369	1.366	1.370
AI	0.040	0.060		0.050	0.053	0.051	0.052	0.052
AJ	1.190	1.230		1.213	1.212	1.212	1.212	1.216
AK	0.010	0.020		0.015	0.015	0.015	0.015	0.015
AL	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AM	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AN	2.518	2.538		2.525	2.528	2.528	2.530	2.525
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		0.265	0.265	0.265	0.265	0.267
AQ	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	DJP	Date:	10/07/01
Audited by:	SP	Date:	10/07/01
Prototype Approval:		Date:	

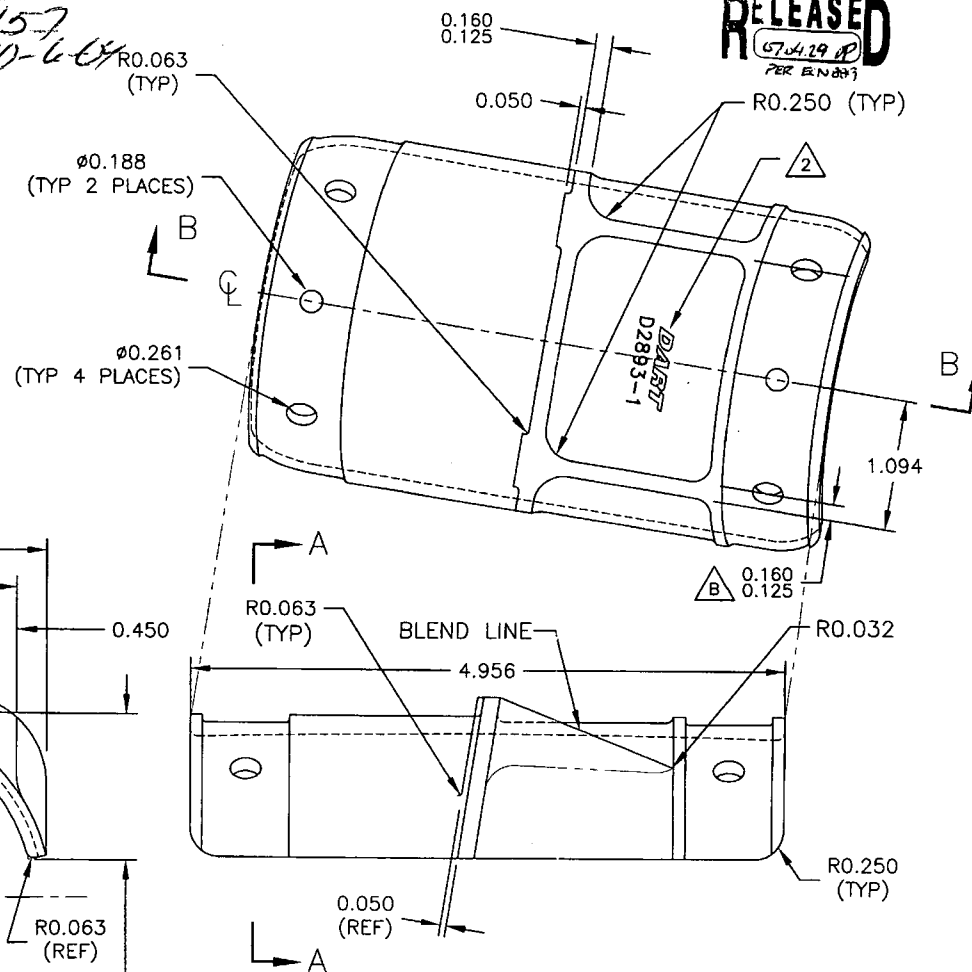
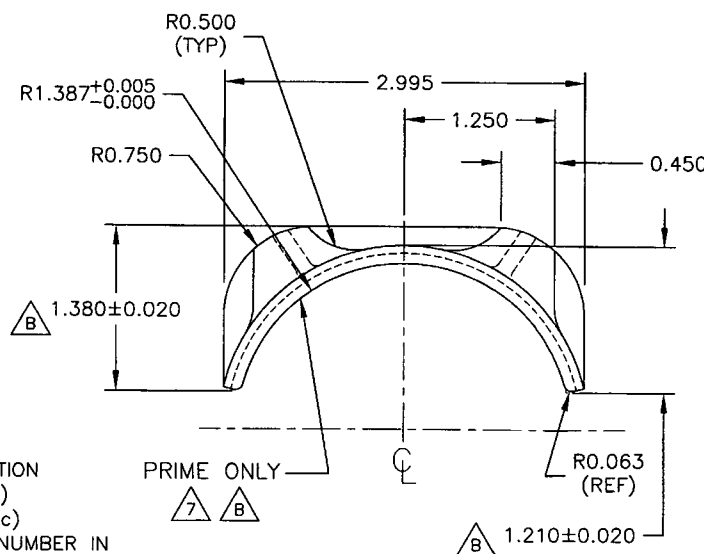
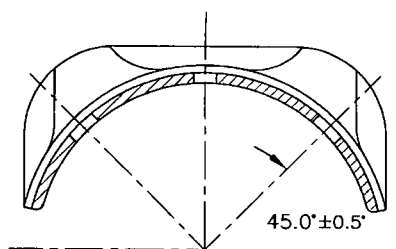
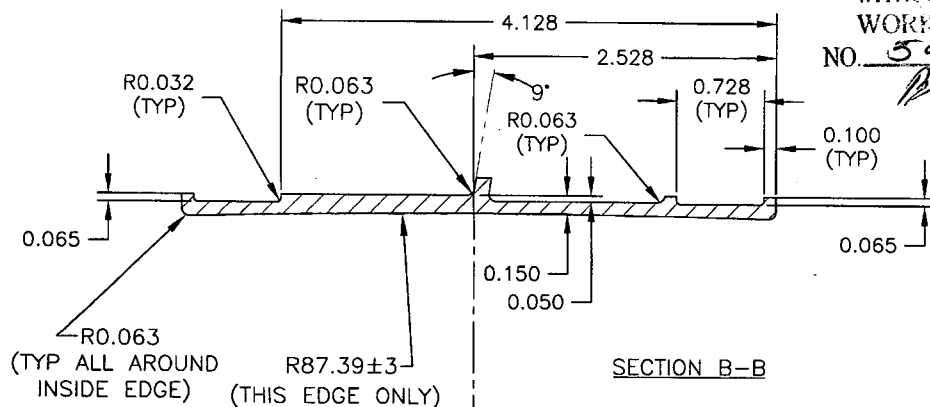
Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER

NO. 59457
PT 10-6-64

RELEASED
670429
PER ENR 883



D2893-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRc)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN
THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	07.03.16	UPDATE DIMS AS MFG., PRIME INSIDE
A	01.01.10	NEW ISSUE
DESIGN	9P	DRAWN BY PH
CHECKED	PH	APPROVED
DATE	07.03.16	TITLE
		Ø2.750 SUPPORT
		REV. B
		SHEET 1 OF 1
		SCALE
		1:1

DART

DART AEROSPACE LTD.
HAMPSHIRE, ONTARIO, CANADA

DRAWING NO.
D2893

REV. B
SHEET 1 OF 1

SCALE
1:1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries